## This Page Is Inserted by IFW Operations and is not a part of the Official Record

## **BEST AVAILABLE IMAGES**

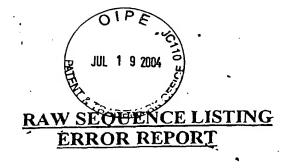
Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

## IMAGES ARE BEST AVAILABLE COPY.

As rescanning documents will not correct images, please do not report the images to the Image Problem Mailbox.





The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: US

Source:

-Date Processed by STIC:

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,

2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 703-308-4212; FAX: 703-308-4221

Effective 12/13/03: TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE <u>CHECKER VERSION 4.1 PROGRAM</u>, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS: http://www.uspto.gov/web/offices/pac/checker/chkr41note.htm

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail. Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm>, EFS Submission User Manual - ePAVE)

2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

Hand Carry directly to (EFFECTIVE 12/01/03):
 U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

 Federal Express, United Parcel Service, or-other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1903-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 10/08/03



4 <110> APPLICANT: van den Boom, Dirk



Ιŀ

RAW SEQUENCE LISTING DATE: 12/15/2003 PATENT APPLICATION: US/10/723,365 TIME: 16:39:16

Input Set : A:\pto.ln.txt

```
B"cker, Sebastian
  7 <120> TITLE OF INVENTION: FRAGMENTATION-BASED METHODS AND SYSTEMS
          FOR SEQUENCE VARIATION DETECTION AND DISCOVERY
  11 <130> FILE REFERENCE: 24736-2073
> 13 <140> CURRENT APPLICATION NUMBER: US/10/723,365
  14 <141> CURRENT FILING DATE: 2003-11-26
  16 <150> PRIOR APPLICATION NUMBER: US 60/429,895
  17 <151> PRIOR FILING DATE: 2002-11-27
  19 <160> NUMBER OF SEQ ID NOS: 85
  21 <170> SOFTWARE: FastSEQ for Windows Version 4.0
                                                                 Does Not Comply
  23 <210> SEQ ID NO: 1
                                                                 Corrected Diskette Needed
  24 <211> LENGTH: 7
  25 <212> TYPE: PRT
  26 <213> ORGANISM: Artificial Sequence
  28 <220> FEATURE:
  29 <223> OTHER INFORMATION: Renin cleavage site
  31 <400> SEQUENCE: 1
  32 Pro Phe His Leu Leu Val Tyr
  33 1
  36 <210> SEQ ID NO: 2
  37 <211> LENGTH: 5
  38 <212> TYPE: PRT
  39 <213> ORGANISM: Artificial Sequence
  41 <220> FEATURE:
  42 <223> OTHER INFORMATION: Factor Xa cleavage site
  44 <221> NAME/KEY: VARIANT
  45 <222> LOCATION: 5
  46 <223> OTHER INFORMATION: Xaa = Any Amino Acid Except Pro or Arg
  48 <400> 2
  49 Ile Glu Gly Arg Xaa
  50 1
  53 <210> SEQ ID NO: 3
  54 <211> LENGTH: 5
  55 <212> TYPE: PRT
  56 <213> ORGANISM: Artificial Sequence
  58 <220> FEATURE:
  59 <223> OTHER INFORMATION: Factor Xa cleavage site
> 61 <221> NAME/KEY: VARIANT
  62 <222> LOCATION: 5
  63 <223> OTHER INFORMATION: Xaa = Any Amino Acid Except Pro or Arg
> 65 <400> 3
> 66 Ile Asp Gly Arg Xaa
```

DATE: 12/15/2003

TIME: 16:39:16

```
Input Set : A:\pto.ln.txt
                 Output Set: N:\CRF4\12112003\J723365.raw
 67 1
 70 <210> SEQ ID NO: 4
 71 <211> LENGTH: 5
 72 <212> TYPE: PRT
 73 <213> ORGANISM: Artificial Sequence
 75 <220> FEATURE:
 76 <223> OTHER INFORMATION: Factor Xa cleavage site
> 78 <221> NAME/KEY: VARIANT
 79 <222> LOCATION: 5
 80 <223> OTHER INFORMATION: Xaa = Any Amino Acid Except Pro or Arg
> 82 <400> 4
> 83 Ala Glu Gly Arg Xaa
  87 <210> SEQ ID NO: 5
  88 <211> LENGTH: 5
  89 <212> TYPE: PRT
  90 <213> ORGANISM: Artificial Sequence
  92 <220> FEATURE:
  93 <223> OTHER INFORMATION: Collagenase cleavage site
> 95 <221> NAME/KEY: VARIANT
  96 <222> LOCATION: 2, 5
  97 <223> OTHER INFORMATION: Xaa = Any Amino Acid
> 99 <400> 5
> 100 Pro Xaa Gly Pro Xaa
  101 1
  104 <210> SEQ ID NO: 6
  105 <211> LENGTH: 49
  106 <212> TYPE: DNA
  107 <213> ORGANISM: Artificial Sequence
  109 <220> FEATURE:
  110 <223> OTHER INFORMATION: Forward primer for base-specific cleavage
  112 <400> SEQUENCE: 6
  113 cagtaatacg actcactata gggagaaggc tccccagcaa gacggactt
                                                                          49
  115 <210> SEQ ID NO: 7
  116 <211> LENGTH: 28
  117 <212> TYPE: DNA
  118 <213> ORGANISM: Artificial Sequence
  120 <220> FEATURE:
  121 <223> OTHER INFORMATION: Reverse primer for base-specific cleavage
  123 <400> SEQUENCE: 7
                                                                          28
  124 aggaagagag cgcctcggca aagtacac
  126 <210> SEQ ID NO: 8
  127 <211> LENGTH: 340
  128 <212> TYPE: DNA
  129 <213> ORGANISM: Artificial Sequence
  131 <220> FEATURE:
  132 <223> OTHER INFORMATION: Amplicon for base-specific cleavage
  134 <400> SEQUENCE: 8
  135 gggagaaggc tccccagcaa gacggacttc ttcaaaaaca tcatgaactt catagacatt 60
```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/723,365

DATE: 12/15/2003

TIME: 16:39:16

Input Set : A:\pto.ln.txt Output Set: N:\CRF4\12112003\J723365.raw 136 gtggccatca ttccttattt catcacgctg ggcaccgaga tagctgagca ggaaggaaac 120 137 cagaagggcg agcaggccac ctccctggcc atcctcaggg tcatccgctt ggtaagggtt 180 138 tttagaatct tcaagctctc ccgccactct aagggcctcc agatectggg ccagaccctc 240 139 aaagctagta tgagagagct agggctgctc atctttttcc tcttcatcgg ggtcatcctg 300 140 ttttctagtg cagtgtactt tgccgaggcg ctctcttcct 142 <210> SEQ ID NO: 9 143 <211> LENGTH: 23 144 <212> TYPE: DNA 145 <213> ORGANISM: Artificial Sequence 147 <220> FEATURE: 148 <223> OTHER INFORMATION: Forward primer for partial cleavage 150 <221> NAME/KEY: modified\_base 151 <222> LOCATION: 1 152 <223> OTHER INFORMATION: Biotinylated > 154 <400> 9 23 155 cccagtcacg acgttgtaaa acg 157 <210> SEQ ID NO: 10 158 <211> LENGTH: 23 159 <212> TYPE: DNA 160 <213> ORGANISM: Artificial Sequence 162 <220> FEATURE: 163 <223> OTHER INFORMATION: Reverse primer for partial cleavage 165 <400> SEQUENCE: 10 23 166 agcggataac aatttcacac agg 168 <210> SEQ ID NO: 11 169 <211> LENGTH: 117 170 <212> TYPE: DNA 171 <213> ORGANISM: Artificial Sequence 173 <220> FEATURE: 174 <223> OTHER INFORMATION: Amplicon for partial cleavage 176 <400> SEQUENCE: 11 177 cccagtcacg acgttgtaaa acgtccaggg aggactcacc atgggcattt gattgcagag 60 178 cageteegag tecateeaga getteetgea gteacetgtg tgaaattgtt ateeget 180 <210> SEQ ID NO: 12 181 <211> LENGTH: 21 182 <212> TYPE: DNA 183 <213> ORGANISM: Artificial Sequence 185 <220> FEATURE: 186 <223> OTHER INFORMATION: Reference sequence > 188 <221> NAME/KEY: misc\_feature 189 <222> LOCATION: 11 190 <223> OTHER INFORMATION: n = C or A > 192 <221> misc feature 193 <222> LOCATION: 1, 2, 3, 8, 9, 10, 12, 13, 14, 19, 20, 21 194 <223> OTHER INFORMATION: n = A, T, C or G > 196 <400> 12 21 > 197 nnnactgnnn nnnntgacnn n

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/723,365

199 <210> SEQ ID NO: 13 200 <211> LENGTH: 583

```
Output Set: N:\CRF4\12112003\J723365.raw
    201 <212> TYPE: DNA
    202 <213> ORGANISM: Artificial Sequence
     204 <220> FEATURE:
     205 <223> OTHER INFORMATION: CETP Amplicon
     207 <400> SEQUENCE: 13
     208 cttcagtgct cacaccgacc ctatgagtgg ggcggtcaaa ctgtccccat tttacacaca 60
     209 gggaaactta gtgaatggca aggctgggtt tgagcccagc tctattgccc ccaaagataa 120
     210 ggctccattc cctgctccat ttcccaggca tagggacttg tagggggctg gaaccccagg 180
     211 atcaactctg ggctcagagg gccccagcaa taagtgactg ttgattactc ctgatcccaa 240
     212 agetgaette aggeaagete ettggaggte geageceett ettgetatge eeagtggeaa 300
                                                                                                                                                                                                              Mandatory 2 for L3087, must be ponce.

Mandatory 2 for L3
     213 tgatgttcat aatcccactc ctcagtgcag ggttccacta agaacccatg atctcctacc 360
     214 tcaaatggac ctcatgcttt ctgagtaagc ctccctcagc tttctggtca cctcactccc 420
     215 occacccact gcaatgactt cttcaggcct tccctgccat cctcaaatct ccagctgccc 480
     216 ectectgtet acettecaet teceteteca cacacaacet gettaccaga gagetgagea 540
      217 gagecaceaa cagaacttee ecceeacgte getgeteeca gte
     219 <210> SEQ ID NO: 14
      220 <211> LENGTH: 483
      221 <212> TYPE: DNA
      222 <213> ORGANISM: Mycobacterium abscessus
                     <300> PUBLICATION INFORMATION:
      225 (308) DATABASE ACCESSION NO: EMBL Accession No. AJ536038
> 227 <300> PUBLICATION INFORMATION: 14
      228 acgggtgagt aacacgtggg tgatctgccc tgcactctgg gataagcctg ggaaactggg 60
      229 tetaataceg gataggacea cacactteat ggtgagtggt geaaagettt tgeggtgtgg 120
      230 gatgagcccg cggcctatca gcttgttggt ggggtaatgg cccaccaagg cgacgacggg 180
      231 tagecggeet gagagggtga ceggeeacae tgggaetgag ataeggeeca gaeteetaeg 240
     Mycobacterium avium

PUBLICATION INFORMATION:

Accession No. AJ536037

PUBLICATION INFORMATION:

Accession No. AJ536037

PUBLICATION INFORMATION:

Accession No. AJ536037

AND ADDRESS ACCESSION NO: EMBL Accession No. AJ536037

ACCESSION NO: EMBL Accession No. AJ536037

AND ADDRESS ACCESSION NO: ADDRESS ACCES
      232 ggaggcagca gtggggaata ttgcacaatg ggcgcaagcc tgatgcagcg acgccgcgtg 300
> 246 <300> PUBLICATION INFORMATION: 15
        258 <211> LENGTH: 495
```

RAW SEQUENCE LISTING

Input Set : A:\pto.ln.txt

PATENT APPLICATION: US/10/723,365

DATE: 12/15/2003

TIME: 16:39:16

DATE: 12/15/2003

TIME: 16:39:16

Output Set: N:\CRF4\12112003\J723365.raw -SAME erron 259 <212> TYPE: DNA 260 <213> ORGANISM: Mycobacterium celatum 262 <300> PUBLICATION INFORMATION: 263 <308 DATABASE ACCESSION NO: EMBL Accession No. AJ536040 > 265 <300 PUBLICATION INFORMATION: 16 266 acgggtgagt aacacgtggg tgatctgccc tgcacttcgg gataagcttg ggaaactggg 60 267 tctaataccg gataggacca tgggatgcat gtcttgtggt ggaaagcttt tgcggtgtgg 120 268 gatgggcccg cggcctatca gcttgttggt ggggtgatgg cctaccaagg cgacgacggg 180 269 tagecggeet gagagggtgt ceggeeacac tgggaetgag ataeggeeca gaeteetaeg 240 270 ggaggcagca gtggggaata ttgcacaatg ggcgcaagcc tgatgcagcg acgccgcgtg 300 271 ggggatgacg gccttcgggt tgtaaacctc tttcaccatc gacgaagctg ccggttttcc 360 272 ggtggtgacg gtaggtggag aagaagcacc ggccaactac gtgccagcag ccgcggtaat 420 273 acgtagggtg cgagcgttgt ccggaattac tgggcgtaaa gagctcgtag gtggtttgtc 480 274 gcgttgttcg tgaaa 276 <210> SEQ ID NO: 17 277 <211> LENGTH: 483 some error 278 <212> TYPE: DNA 279 <213> ORGANISM: Mycobacterium fortuitum 281 <300> PUBLICATION INFORMATION: 282 308 DATABASE ACCESSION NO: EMBL Accession No. AJ536039 > 284 <300> PUBLICATION INFORMATION: 17 285 acgggtgagt aacacgtggg tgatctgccc tgcactttgg gataagcctg ggaaactggg 60 286 tetaataccg aatatgacca egegetteat ggtgtgtggt ggaaagettt tgeggtgtgg 120 287 gatgggcccg cggcctatca gcttgttggt ggggtaatgg cctaccaagg cgacgacggg 180 288 tagccggcct gagagggtga ccggccacac tgggactgag atacggccca gactcctacg 240 289 ggaggcagca gtggggaata ttgcacaatg ggcgcaagcc tgatgcagcg acgccgcgtg 300 290 agggatgacg gccttcgggt tgtaaacctc tttcaatagg gacgaagcgc aagtgacggt 360 291 acctatagaa gaaggaccgg ccaactacgt gccagcagcc gcggtaatac gtagggtccg 420 292 agcgttgtcc ggaattactg ggcgtaaaga gctcgtaggt ggtttgtcgc gttgttcgtg 480 293 aaa 295 <210> SEQ ID NO: 18 296 <211> LENGTH: 495 -SAME erron 297 <212> TYPE: DNA 298 <213> ORGANISM: Mycobacterium gordonae 300 <300> PUBLICATION INFORMATION: 301 (308) DATABASE ACCESSION NO: EMBL Accession No. AJ536042 > 303 (300) PUBLICATION INFORMATION: 18 304 acgggtgagt aacacgtggg taatctgccc tgcacatcgg gataagcctg ggaaactggg 60 305 totaataccg aataggacca caggacacat gtootgtggt ggaaagettt tgcggtgtgg 120 306 gatgggcccg cggcctatca gcttgttggt ggggtgatgg cctaccaagg cgacgacggg 180 307 tagcoggect gagagggtgt coggocacae tgggaetgag ataeggeeca gacteetaeg 240 308 ggaggcagca gtggggaata ttgcacaatg ggcgaaagcc tgatgcagcg acgccgcgtg 300 309 ggggatgacg gccttcgggt tgtaaacctc tttcaccatc gacgaaggtc cgggttttct 360 310 cgggctgacg gtaggtggag aagaagcacc ggccaactac gtgccagcag ccgcggtaat 420 311 acgtagggtg cgagcgttgt ccggaattac tgggcgtaaa gagctcgtag gtggtttgtc 480 495 312 gcgttgttcg tgaaa 314 <210> SEQ ID NO: 19

RAW SEQUENCE LISTING

Input Set : A:\pto.ln.txt

PATENT APPLICATION: US/10/723,365

315 <211> LENGTH: 495 316 <212> TYPE: DNA RAW SEQUENCE LISTING ERROR SUMMARY PATENT APPLICATION: US/10/723,365

DATE: 12/15/2003 TIME: 16:39:17

Input Set : A:\pto.ln.txt

Output Set: N:\CRF4\12112003\J723365.raw

ase Note: of n and/or Xaa have been detected in the Sequence Listing. Please review the uence Listing to ensure that a corresponding explanation is presented in the <220> <223> fields of each sequence which presents at least one n or Xaa. #:2; Xaa Pos. 5 #:3; Xaa Pos. 5 / #:4; Xaa Pos. 5 V #:4: Add Pos. 3,5 #:5; Xaa Pos. 2,5 #:12; N Pos. 1,2,3,8,9,10,11,12,13,14,19,20,21 #:32; N Pos. 821 #:45; N Pos. 123 #:46; N Pos. 174,179,317 #:47; N Pos. 285,286 #:48; N Pos. 131 #:49; N Pos. 47,50,51,52,111,135,185,198,253,359 #:50; N Pos. 131 #:51; N Pos. 228,230,235,236,240,243,245 #:52; N Pos. 84,265,269 #:53; N Pos. 136,385 #:54; N Pos. 76 #:55; N Pos. 157 #:56; N Pos. 103 #:57; N Pos. 31 #:58; N Pos. 211 #:59; N Pos. 77 #:60; N Pos. 131,239,254,283 #:61; N Pos. 100 #:62; N Pos. 228,341 #:63; N Pos. 300,696,741,771 #:64; N Pos. 378 #:65; N Pos. 137 #:66; N Pos. 249 #:67; N Pos. 80,206,295,315,317,318,373,400,479 #:68; N Pos. 48,154 #:69; N Pos. 205,277,304 #:70; N Pos. 117 #:71; N Pos. 37,329,350 #:72; N. Pos. 653 #:73; N Pos. 257 #:74; N Pos. 98,114 #:75; N Pos. 21,61,83,84,85,86 #:78; N Pos. 183,256,284,327 #:79; N Pos. 279 #:80; N Pos. 44 #:81; N Pos. 346 #:82; N Pos. 291 #:83; N Pos. 260

#:84; N Pos. 257

VERIFICATION SUMMARY
PATENT APPLICATION: US/10/723,365

DATE: 12/15/2003
TIME: 16:39:17

Input Set : A:\pto.ln.txt

```
3 M:270 C: Current Application Number differs, Replaced Current Application Number
4 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
8 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:2
9 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:0
1 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
5 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:3
6 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:0
8 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
2 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:4
3 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
5 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
9 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:5
00 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0
50 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
54 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:9
88 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
92 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:12
96 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:12 97 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:0
27 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:14
46 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:15
65 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:16
84 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:17 03 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:18 22 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:19
41 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:20
60 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:21
79 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:22 98 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:23 17 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:24
36 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:25
03 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:29
70 M:256 W: Invalid Numeric Header Field, Identifier <309> Expected, SEQ:32
84 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32 after pos.:780
61 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
65 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:45
68 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45 after pos.:120
83 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
87 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:46
91 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:46
94 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:46 after pos.:120
41 Repeated in SeqNo=46
09 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
13 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:47
18 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:47 after pos.:240
31 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
35 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:48
38 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:48 after pos.:120
```

VERIFICATION SUMMARY
PATENT APPLICATION: US/10/723,365
DATE: 12/15/2003
TIME: 16:39:17

Input Set : A:\pto.ln.txt

```
53 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
57 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:49
61 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:49
65 M: 258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:49
69 M: 258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:49
70 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:49 after pos.:0
41 Repeated in SeqNo=49
88 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
92 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:50
95 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:50 after pos.:120
10 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
14 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:51
18 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:51 after pos.:180
41 Repeated in SeqNo=51
31 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
35 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:52 39 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:52
41 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:52 after pos.:60
41 Repeated in SeqNo=52
57 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
61 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:53 65 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:53
68 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:53 after pos.:120
41 Repeated in SeqNo=53
83 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
87 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:54
89 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:54 after pos.:60
005 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
009 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:55
012 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:55 after pos.:120
026 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
030 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:56
032 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:56 after pos.:60
049 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
053 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:57
054 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:57 after pos.:0
070 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
074 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:58
078 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:58 after pos.:180
091 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
095 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:59
097 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:59 after pos.:60
112 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
116 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:60
120 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:60
124 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:60
128 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:60
131 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:60 after pos.:120
41 Repeated in SeqNo=60
```

VERIFICATION SUMMARY
PATENT APPLICATION: US/10/723,365
DATE: 12/15/2003
TIME: 16:39:17

Input Set : A:\pto.in.txt

```
145 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
149 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:61
151 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:61 after pos.:60
166 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
170 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:62
174 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:62
178 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:62 after pos.:180
41 Repeated in SegNo=62
192 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
196 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:63
200 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:63
204 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:63
209 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:63 after pos.:240
41 Repeated in SeqNo=63
228 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
232 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:64
239 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:64 after pos.:360
251 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
255 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:65
258 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:65 after pos.:120
272 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
276 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:66
281 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:66 after pos.:240
292 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
296 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:67
300 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:67
302 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:67 after pos.:60
41 Repeated in SeqNo=67
320 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
324 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:68 328 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:68
329 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:68 after pos.:0
41 Repeated in SeqNo=68
345 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
349 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:69 353 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:69
357 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:69
361 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:69 after pos.:180
 41 Repeated in SeqNo=69
 374 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
 378 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:70
 380 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:70 after pos.:60
 395 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
 399 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:71
 408 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:71 after pos.:0
 41 Repeated in SeqNo=71
 424 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
 439 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:72 after pos.:600
 450 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
```

VERIFICATION SUMMARY DATE: 12/15/2003 PATENT APPLICATION: US/10/723,365 TIME: 16:39:17

Input Set : A:\pto.ln.txt

459 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:73 after pos.:240

```
476 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
486 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:74 after pos.:60
501 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
514 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:75 after pos.:0
41 Repeated in SeqNo=75
563 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
583 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
604 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
625 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
646 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
667 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
688 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!
```

VERIFICATION SUMMARY DATE: 12/15/2003 PATENT APPLICATION: US/10/723,365 TIME: 16:39:17

Input Set : A:\pto.ln.txt

